LITTLE KNOWN *Tyto* OWLS OF WALLACEA

By K. David Bishop
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During the preparation of The Guide to the Birds of Wallacea, and a review of the conservation and status of Wallacea's endemic birds, it became clear that reviews of little know species or species groups would perhaps aid those species' conservation by drawing attention to them. Secondly such accounts would also provide a useful resource to the growing number of field workers in this, until recently, sadly neglected region. This first account deals with three virtually unknown *Tyto* Owls endemic to Wallacea.

***Tyto sororcula* Lesser Masked Owl**

Distribution : *Tyto sororcula cayelii* is known from the unique type, an adult, collected during October 1989 by William Doherty near Kaleji Bay on the extreme east coast of Buru (Hartert 1900). The only other record of this subspecies is of an adult mate; not a female as cited in White & Bruce (1986) (see Siebbers 1930), collected by L.J. Toxopeus near the Was (River) Eno on 7 April 1921 (Siebers 1930). A second specimen collected by Toxopeus was subsequently tost (White & Bruce 1986).

Buru has not been ornithological1y surveyed since 1921, with the exception of a seven day visit by Fred Smiet during November 1980 (Smiet 1985). However, Smiet was primarily concerned with locating suitable conservation areas. He did not record *T. s. Cayelii.*

Tyto sororcula sororcula is known from an adult female, collected by Henry 0. Forbes on 24 September 1882 on the island of Larat in the Tanimbar Islands (Sclater 1883) and a second adult female, collected forty years later by F. Kopstein on 22 April 1923 (Stresemann 1934). The island on which this latter specimen was collected is unknown. The Tanimbar Islands were not ornithological1y surveyed again until recently. During 13-23 October 1981 Smiet visited the largest island, Yamdena, and a number of coastal islets in order to determine suitable conservation areas (Anon 1981a). Despite making a number of useful bird observations (see White & Bruce 1986) he did not record *T. s. sororcula.* During 23 August to 8 November 1985 Frank Rozendaal made a thorough ornithological survey of Yamdena but also failed to find this owl (*Vide* Collar & Andrew 1988).

Habitat : No data on the precise locality, altitude or habitat was recorded for any of the specimens or in any of the literature detailing their collection. However Kaleji Bay and the Wae Eno on Buru are both lowland areas and presumably would have been covered at one time with moist tropical lowland forest (*Vide* Anon 1981a).The Tanimbar Islands

are mostly flat; Yamdena is still covered with large areas .of primary and mature secondary monsoon woodland (Anon 1981a), whereas the forests on Larat may be seriously degraded (Heinrich Kuhn, in Hartert 1901).

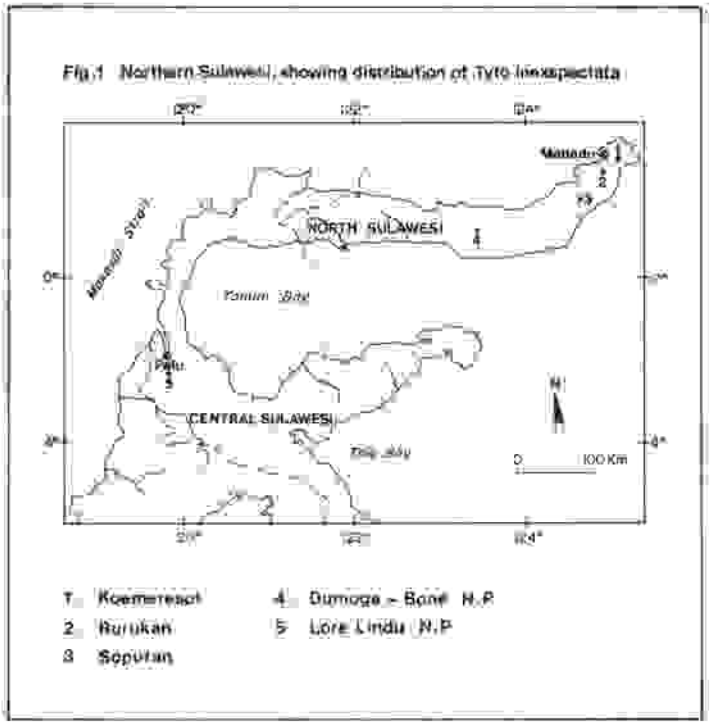
Conservation: Much of Buru's flat lowland forests, especially within 5km of the coast, have been selectively logged and areas of rich alluvial soils such as Kaleji Bay have been converted to agriculture (Anon 1981b and pers obs). Two reserves totalling an area of c 141 000 ha have been proposed (Anon 1981b). Neither have been ornithologically surveyed. In the Tanimbar islands four areas with a total of c 65 000 ha have been proposed as reserves (Anon 1981b). However, two of the sites are tiny offshore islets and the third is a small area of scrubby, coastal woodland. The only reserve site of any potential conservation value is an area of c 60 000 ha of monsoon woodland across the centre of Yamdena. This area has been only briefly ornithological1y surveyed. Unfortunately, as Rozendaal (in Collar & Andrew 1988) points out, the physical nature of the Tanimbar Islands makes them a very attractive prospect for commercial timber extraction and this may have to be contended with in the near future.

***Tyto inexspectata* Minahasa Owl**

Distribution: The unique type was collected by S.C.I.W. van Musschenbroek during 1876 near Manado in the hills of NE Sulawesi, (Kabupaten Minahasa) (Schlegel 1879). Although the specimen is unsexed, Mees (pers comm) suggests its large size agrees more with Coomans de Ruiter's "giant" female specimen than with any of the identified male specimens. During Gerhard Heinrich's lengthy and very productive period of field work throughout Sulawesi 1930-1932 (Stresemann 1940-41), he collected four specimens, also from the north-east. During 1939, Coomans de Ruiter collected a further four specimens again from the northeast (Van Marle 1940). Collecting locations of all nine specimen are shown on Figure 1. Two of the four specimens collected by Coomans de Ruiter were a pair that he had earlier observed on 8 April 1939. The two birds, were seen attending what appeared to be a nest hole in a tree *Elmerrillia ovalis* "de dandy bloom" on the slopes of Mt. Koemeresot (Van Marle 1940). This would appear to be the only observation of any of the "golden owls" nesting.

Although Sulawesi is ornithological1y the most well documented island in Wallacea and has been the subject of a number of surveys since the time of Coomans de Ruiter, *T. inexspectata* was not recorded again until 1980. On 21 November 1980 an unsexed adult was found dead at 750m close to forest in the Lore Lindu NP (Watling 1983). The specimen, the first record of this species outside Kabupaten Minahasa, NE Sulawesi, was deposited at the BMNH, Birds, Tring. The eleventh and last specimen, a male, was found alive by national park rangers near Toraut in the Dumoga-Bone national park, during early October 1981. It died in captivity and the entire specimen was deposited at the Rijksmuseum van

Natuurlijke Historie, Leiden, Netherlands (Mees, pers comm). The latter two specimens contain probably the only preserved skeletons of this interesting species.



Habitat : Primary lowland and hill forest and, at least occasionally, forest edge; 100m to 1500m above sea level.

Population : Unknown. Recorded from just eleven specimens and rarely observed in the field. As with other forest dwelling members of this genus *T. inexspectata* is apparently widely but sparsely distributed, shy and easily overlooked.

Nomenclature: As noted by Watting (1983) the discovery of this species in NCen Sulawesi renders the name Minahasa Owl obsolete. It is proposed that in the forthcoming *Guide to the birds of Wallacea* the name Sulawesi Golden Owl will be used. This name reflects the bird's distribution, plumage colouration and links with a distinct sub-group within the genus *Tyto*.

Conservation: destruction of what appears to be its characteristic habitat in the area from which nine of the eleven specimens were collected, Kabupaten Minahasa, is almost complete, with the exception of a few remnant patches. As of 1982 the gross area of lowland, hill and montane forest remaining in the whole of North Sulawesi Province (including Kabupaten Minahasa) was slightly more than 1.5 million hectares (David Wall pers comm. to Derek Holmes). However, this figure includes large areas of secondary, disturbed and commercially utilised forest and a wide range of forest types, many of which are probably unsuitable for r. *inexspactata.* This factor coupled with its apparent low population density is cause for considerable concern. However, twenty one reserves with an approximate total land area of c 900 000 ha have been proposed and/or established within the general known range of this species (Anon 1982). *T. nexspectata* has been recorded from two of the largest, biologically most important and best administered parks in Wallacea: Dumoga-Bone NP (278 700 ha) in the northern peninsula and Lore Lindu NP (229 000 ha) in NCen Sulawesi. A third site from which it was recorded fifty years ago, Mt Soputan (13 433 ha), has not been surveyed ornithologically since the time of Coomans de Ruiter. The status of its forests is unknown. A number of other reserves such as Tangkoko Dua Saudara (8 867 ha), Mt Simbalang (c 15 000 ha) and Morowati (200 000 ha) could also be of considerable conservation value to this species' survival, though the presence of *T. inexpectata* within these areas has not yet been established. The Morowati reserve is a large area of hilly and mountainous forest and at present well isolated from serious human disturbance. However, to date only a bare list of species recorded there during a brief survey has been published (Anon 1980).

***Tyto nigrobrunnea* Taliabu Owl**

Distribution: Known only from the type specimen, an adult female, collected on the island of Taliabu, Sula Islands (2° S, 125° E); it was procured by the local hunters employed by the collector J.J. Menden. The specimen is at the Staattiche Museum fur Tierkunde, Dresden (M.D. Bruce, pers comm).

Habitat : Unknown. No data concerning the precise locality, altitude or habitat were included on the specimen label or in the original description of the type specimen (see Neumann 1939).

Conservation : The Sula Islands, are some of the ornithologically least known islands in Wallacea. There are no published field observations of any of their endemic birds and little information can be gleaned from the few specimens collected (pers obs). Notably the FAO National Conservation Plan for Indonesia programme failed to include the 8u1a Islands in their field surveys even though a reserve of c. 70 000 ha was proposed, based on the central Tallabu mountains, (Anon 1981b). This area has not been ornithologically surveyed. Brief aerial views of the Sula Islands during 1986 - 1988 (pers obs) suggest that

most of the flat lowlands of Taliabu Island and the coastal strip on Mangole Island have been converted to human habitation and cultivation. However, large areas of forest are still present on Mangole and the smaller island of Sanana. The entire island group has been parcelled out in commercial timber concessions (PT. Mangole pers comm) and this does not inspire much optimism for the future conservation of these islands' endemic birds.

Conclusion

All three species are virtually unknown in the wild. This factor coupled with the continuing destruct-ion to their native forests suggests that their numbers are severely reduced and that they may be threatened (*vide* Collar & Andrew 1988). It is recommended here that all three species are placed on the Bird Red Data List in the category indeterminate. Furthermore, they should be included in Indonesia's list of protected species and be afforded the protection provided under the legislation "Undang-undang Perlindungan Binatang-binatang liar 19 no.134".

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Address:
'Semioptera', Lot IS, Kerns Road, Kincumber, NSW 2250, Australia.

TAXONOMIC RELATIONSHIPS OF THE WHITE-RUMPED KINGFISHER *Caridonax fulgidus*

By John L. McKean (Received 22 February 1988)

The taxonomic relationships of the White-rumped Kingfisher *Caridonax fulgidus* are not well established. Fry (1980), in his comprehensive review of the Alcedinidae, retained the species in *Halcyon* for convenience only, noting that its colour pattern is like the blue and white *Tanysiptera* species and distantly like *Actenoides bougainvillea.* Forshaw and Cooper (1983) likewise retained the species in *Halcyon.* Forshaw (*in litt.* 17 November 1987) suggests that a thorough investigation of a possible relationship between it and *H. coromanda* should be undertaken. Bruce, in White and Bruce (1986), considered that until more is known of this bird and its presumed relationships with *Tanysiptera* and *Actenoides,* it was best placed in the monotypic genus *Caridonax.* While I also think that this species is best retained in *Caridonax,* I consider that its affinities tie dose to *Dacelo.* My evidence is based on calls and calling posture as outlined below.

During August 1987, I found *C. fulgidus* common in forest to 1700 metres altitude on Flores, Indonesia. "It was particularly active at dusk and dawn when its white rump showed to advantage as it flew across forest clearings. In this respect it resembles *Tanysiptera sylvia* and *T. galeata*.